

IN THE CLAIMS:

1. (Previously Presented) A dielectrically separated wafer having a plurality of dielectrically separated monocrystalline silicon islands mutually defined by a dielectrically separating oxide film on a surface of the wafer, wherein said dielectrically separated silicon islands comprise:

a high concentration impurity layer formed on a bottom of the islands in a flat plate form; and

DI a low concentration impurity layer having an identical conductivity laminated on the plate of the high concentration impurity layer.

2. (Canceled)

A 3. (Previously Presented) A dielectrically separated wafer having a polysilicon layer and a plurality of monocrystalline silicon islands mutually separated by a dielectrically separating layer consisting of a silicon oxide film which is formed on a surface of a polysilicon layer, wherein:

said polysilicon layer is formed by a seed low temperature CVD polysilicon layer grown by a low temperature CVD method on an interface with said dielectrically separating oxide film and a polysilicon layer formed by a high temperature CVD method; and

when the surface is measured by a stylus-profilometer, a flatness of the dielectrically separated silicon wafer is less than $0.2\text{ }\mu\text{m}$ as the absolute roughness between a maximum height and a minimum height.

4. (Canceled)

5. (Previously Presented) A dielectrically separated wafer, having a plurality of dielectrically separated monocrystalline silicon islands separated by a dielectrically separating oxide film on the wafer surface, the dielectrically separated wafer comprises a surface between one dielectrically separated silicon island and another neighboring dielectrically separated silicon island formed so as to be flat by controlling the separation polishing of monocrystalline silicon and the dielectric layer.

6. (Previously Presented) A dielectrically separated silicon wafer according to claim 1, wherein, when this surface is measured by a stylus-profilometer, a flatness of the dielectrically separated silicon wafer is less than $0.2\ \mu\text{m}$ as the absolute roughness between a maximum height and a minimum height.

7. – 9. (Canceled)

10. (New) A dielectrically separated wafer, having a plurality of dielectrically separated monocrystalline silicon islands separated by a dielectrically separating oxide film on the wafer surface, as recited in claim 5,

wherein a flatness of the dielectrically separated wafer is less than $0.2\ \mu\text{m}$ as the absolute roughness between a maximum height and a minimum height.

11. (New) A dielectrically separated wafer, having a plurality of dielectrically separated monocrystalline silicon islands separated by a dielectrically separating oxide film on the wafer surface, as recited in claim 5,

wherein a surface area of each of the monocrystalline silicon islands is maximized such that said monocrystalline silicon islands occupy substantially said wafer surface.
